

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 02/33799A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 HO4R1/10 HO4R5/033 HO4R1/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 HO4R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 099 519 A (GUAN YU) 24 March 1992 (1992-03-24) column 1, line 6 - line 58 abstract	1,15
Y	FR 2 755 561 A (NEILL ANDRE O) 7 May 1998 (1998-05-07) page 2, line 6 - line 17 figure 5 page 6, line 8 - line 30 page 3, line 3 - line 34 -----	9
Y		9

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Z document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
20 January 2003	24/01/2003
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax. (+31-70) 340-3016	Authorized officer Dionisi, M

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5099519	A 24-03-1992	NONE	
FR 2755561	A 07-05-1998	FR 2755561 A1	07-05-1998